UNITED
NATIONS

A

General Assembly

Distr.
GENERAL

A/AC.105/PV.380
16 June 1993

ENGLISH

COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE 380th MEETING

Held at Headquarters, New York,
on Tuesday, 8 June 1993, at 10 a.m.

Chairman: Mr. HOHENFELLNER (Austria)

- Attendance by non-members of the Committee

- General exchange of views (continued)

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The meeting was called to order at 10.45 a.m.

ATTENDANCE BY NON-MEMBERS OF THE COMMITTEE

The CHAIRMAN: I should like to inform members that I have received notes verbales from the Slovak Republic, Senegal and the Libyan Arab Jamahiriya in which they have requested permission to attend the current session of the Committee as observers. I should therefore like to suggest that, in conformity with past practice, we invite those delegations to attend the current session and to address the Committee as appropriate.

This is, of course, without prejudice to further requests of this nature and does not involve any decision by the Committee concerning status. It is a courtesy we customarily extend to delegations.

If there is no objection, we shall proceed accordingly.

It was so decided.

GENERAL EXCHANGE OF VIEWS (continued)

The CHAIRMAN: Before calling on the first speaker on my list, I should like to urge delegations wishing to speak under the item "General exchange of views" to inscribe their names on the list as soon as possible, as I intend to close the list of speakers this afternoon.

Mr. RYDBERG (Sweden): Allow me at the outset to express my pleasure at seeing you in the Chair. May I also take this opportunity to convey my delegation's congratulations to the Office for Outer Space Affairs for the able professional services it continues to render us.

The annual sessions of the Committee on the Peaceful Uses of Outer Space offer an opportunity to take stock of developments in its two Subcommittees. This is an important task. It is the responsibility of the Committee as a whole to give recommendations which provide direction to the Subcommittees and

(Mr. Rydberg, Sweden)

focus their attention on priority issues.

As far as the work of our two Subcommittees is concerned, 1993 would have to be described as an intermediate year; depending on our future action, it may be seen as a year of reflection and redirection.

(Mr. Rydberg, Sweden)

Last year's agreement on a Set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space was indeed a major achievement. Discussions in both Subcommittees this year demonstrate general satisfaction with the Principles, as adopted. No delegation advocated immediate amendments.

The discussion and the useful working papers presented in the Scientific and Technical Subcommittee, furthermore, illustrate the need to continue to consider the matter in the light of developments already well under way during the period of negotiating the Principles. An important point made in the discussions was also that a revision should be undertaken only if it would be likely to result in a significant strengthening of the protection provided by the Principles.

The Legal Subcommittee consequently concluded that it should await input from the Scientific and Technical Subcommittee before undertaking any revision. My delegation agrees with that conclusion, and sees no pressing need for the Legal Subcommittee to deliberate on the matter pending such input.

There appears to be broad agreement that it is for the Scientific and Technical Subcommittee to take the lead also on another crucial issue for present and future use of outer space, the problem of space debris; it is thus no coincidence that the present session of the Committee on the Peaceful Uses of Outer Space (COPUOS) has been specifically requested to consider whether the question should be included in that Subcommittee's agenda for 1994.

My delegation expects our reply to be in the affirmative. The significance of the problem is not a matter of dispute. If unchecked, the danger of collision with space debris will continue to grow with the amount of debris and the number and size of orbiting objects. This may, sooner than we expect, present serious obstacles to the efficient use of space applications

(Mr. Rydberg, Sweden)

precisely at a time when they may finally have become universally available. Space debris is, as stated by the General Assembly, an issue of concern to all nations.

The inclusion of the question of space debris on the agenda of the Scientific and Technical Subcommittee should allow it to proceed to develop a common understanding and an appropriate definition of the problem based on the large number of scientific studies already available. These include the results of the first European conference on space debris, and other current work in the field. On that basis, the Scientific and Technical Subcommittee should also be in a better position to analyse ways and means of reducing future risks.

Outer space is a global resource, which must be kept accessible to all States. That space should be open and accessible is a prerequisite for monitoring the Earth's environment by means of remote-sensing satellites. Space technology is an important tool to assist us in implementing the recommendations of Agenda 21, adopted by the United Nations Conference on Environment and Development (UNCED), in a national as well as a global context.

A number of major applications have been dealt with in the very useful Secretariat report (A/AC.105/547) on the role of COPUOS in this field. The role of space technology in the follow-up to UNCED is a topic which indeed merits further consideration by the Scientific and Technical Subcommittee, as well as a further exchange of information on national views, activities and plans.

It is crucial that developing countries should get access to space technology, inter alia for planning and environmental purposes. International cooperation and a transfer of relevant know-how is necessary in order to

(Mr. Rydberg, Sweden)

facilitate the build-up of indigenous capabilities in the area of remote sensing. In this regard, the important role played by the United Nations Programme on Space Applications should be highlighted; it figures prominently in the Secretariat report to which I have just referred. Sweden continues to support the Programme through annual courses in remote-sensing techniques. The third training course was concluded last Friday, and gathered together 25 participants from three continents.

The need for reflection and redirection is, in the opinion of my delegation, particularly evident for the Legal Subcommittee. I have already dealt with the question of the nuclear-power-source Principles. With regard to some of the other items on the Sucommittee's agenda, progress remains slow and it is clear that it will be difficult to reach agreements along lines presently being considered.

Sweden actively supported, and welcomes, the agreement reached at this year's session of the Legal Subcommittee to adopt a flexible approach to the schedule of work and the duration of future sessions. We look forward to seeing this approach implemented, with a view to improving the effectiveness of the work. There is also reason to assume that such an approach will allow for a shortening of the 1994 session.

Sweden is ready to continue to consider, in an open-minded manner, the possibility of holding a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 3). Precisely because of the significance of such a conference, careful consideration is, however, essential. The purpose must be clear, the preparation adequate and the timing appropriate.

(Mr. Rydberg, Sweden)

What can realistically be expected of a possible UNISPACE 3 will also depend on the development of COPUOS itself. The Committee needs to demonstrate its continued ability to address priority issues and work towards specific results of practical importance to the community of nations.

Mr. ALBIN (Mexico) (interpretation from Spanish): Mr. Chairman, my delegation is pleased to see you once again presiding over the work of the Committee. We also congratulate the Vice-Chairman, and are pleased to see a member of the Brazilian delegation, Mr. Edgar Telles Ribeiro, as Rapporteur. We are convinced that the experience and dedication of the members of the Bureau will undoubtedly contribute to ensuring that the Committee achieves the objectives set it for this session.

I should like to reiterate my Government's support for the work that is being done by this Committee to broaden international cooperation in the field of the peaceful uses of outer space and to establish and adopt, within the framework of the United Nations, effective mechanisms to promote research, the exchange of technical and scientific space know-how and to codify international law on the exploration and exploitation of outer space. My delegation is certain that the Committee is the right forum for developing a legal framework to regulate the various activities that are being developed in outer space and to ensure a just and equitable distribution of the benefits flowing from those activities so that space sciences can develop in all countries and their applications can promote the economic and social development of our peoples.

(Mr. Albin, Mexico)

Concerning the substantive agenda item entitled "Ways and means of maintaining outer space for peaceful purposes", my delegation considers that the Committee has the necessary mandate to study this important question, as can be clearly seen from General Assembly resolution 38/80, which requests the Committee on the Peaceful Uses of Outer Space (COPUOS) to consider, as a matter of priority, the question of the militarization of outer space, and also from General Assembly resolution 37/83, which requests the Committee on Disarmament to consider the question of preventing an arms race in outer space - with its efforts coordinated with those of COPUOS.

(Mr. Albin, Mexico)

More recently, resolution 47/67, adopted by the General Assembly in 1992, urged all States, in particular those with major space capabilities, to contribute actively to the goal of preventing an arms race in outer space.

Those are precisely the mandates that underlie the Mexican delegation's proposal on the need to establish a communications and coordination link between the Committee and its two Subcommittees and the Conference on Disarmament, which, as they are complementary, would make it possible to deal with the subject in a better and broader way, while of course avoiding any duplication.

We are pleased that on 13 May President Clinton's Administration decided to suspend the strategic defence initiative, the so-called "Star Wars" programme, as announced by the head of the Pentagon. This decision will undoubtedly contribute to achieving the goal of preserving outer space exclusively for peaceful purposes.

The achievements of the Scientific and Technical Subcommittee during its thirtieth session were satisfactory, in my delegation's view. None the less, we feel that that Subcommittee still has a great deal to do, in particular in the implementation of the United Nations Programme on Space Applications and the coordination of space activities within the United Nations system. The Organization's role regarding both activities is fundamental and should be strengthened.

The recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) should continue to be applied, as they are the basis for the balanced development of space programmes in the developing countries and constitute a starting point for effective international cooperation in space science and technology.

(Mr. Albin, Mexico)

As we have consistently emphasized, it is essential to allocate more financial resources to the United Nations Office charged with implementing those recommendations and to establish appropriate coordination of space activities within the United Nations system in order to achieve optimal results.

My delegation firmly supports the UNISPACE 82 recommendation, to be implemented through the United Nations Programme on Space Applications, to strengthen regional and interregional cooperation in space technology. In this respect, we endorse the establishment of regional centres to teach space science and technology in existing national and regional educational institutes.

As regards their establishment in Latin America and the Carribean region, my delegation reiterates Mexico's interest in being the site of the headquarters for the regional centre for this purpose. We have offered ample human, technical and financial resources that would make it possible for such a centre to operate properly. My Government is firm in its commitment, and has recently increased to $400,000 its offered annual financial contribution, thanks to the support of an institute of higher education, in order to permit that regional centre to be established with greater certainty of autonomous development, academic excellence and a proper infrastructure.

I also wish to reiterate my Government's interest in the inclusion as soon as possible on the agenda of COPUOS and its two Subcommittees of the subject of space debris. We believe that this is a subject of great relevance and of immediate concern to all countries, involving problems that will increase in the future and therefore must now be considered in all aspects.

(Mr. Albin, Mexico)

My delegation also endorses the recommendations of the Scientific and Technical Subcommittee on its programme of work for 1994, and in particular on the priority subject which it will be considering concerning "Space applications for disaster prevention, warning, mitigation and relief".

My country attaches great importance to the planned holding in Mexico this year of a seminar-workshop on "Applications of Space Technology to Combat Natural Disasters", which is being organized by the Office of the United Nations Disaster Relief Coordinator (UNDRO) for Member States in the region of the Economic Commission for Latin America and the Caribbean.

During the thirty-second session of the Legal Subcommittee, held here in New York, important progress was made which will make it possible in the near future, if the political will exists, to achieve substantive agreements on the various items on the agenda. Mexico is pleased that the General Assembly at its last session adopted without a vote, in resolution 47/68, a set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space and took note that this Committee will review those Principles no later than two years after their adoption. My delegation pointed out in the Subcommittee the existence of a number of lacunae which will have to be given due consideration once the process of reviewing those Principles begins.

The proposals of the Russian Federation and Colombia respectively on the definition and delimitation of outer space and the character and utilization of the geostationary orbit constitute a good basis for negotiations. Furthermore, the working paper submitted by various developing countries, including my own, on "Consideration of the legal aspects related to the application of the principle that the expiration and utilization of outer

(Mr. Albin, Mexico)

space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries" could be the basis for negotiation on a future agreement on this subject.

My delegation also supports the proposal made by the delegation of India at the last session that a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space should be held in 1995 in a developing country. In addition to evaluating progress in space technology in the framework of multilateral cooperation, that conference would set objectives and guidelines for the United Nations in this field for the years to come.

I wish to express my Government's firm support for the commitments made at the United Nations Conference on Environment and Development, held in Rio de Janeiro last year, and our intention to strengthen our national programmes and promote international cooperation in this field. Guidelines should emerge from the forthcoming substantive meetings of the Commission on Sustainable Development, guidelines on which COPUOS will base its cooperation. The Committee's responsibility for the implementation of the guidelines is historic and unique, and therefore it must not be underestimated.

(Mr. Albin, Mexico)

My country is involved in an extraordinary development effort in all fields, including that of space communications, with respect to which we have begun a modernization programme that includes replacing the MORELOS satellites, which will come to the end of their useful life in November this year, by the SOLIDARITY satellite system. This will provide coverage beyond Mexico of a broad area of South America, the Caribbean, Central America and the southern United States. This communications system will be available to the countries of the Latin American and Caribbean region which request it; it will make it possible to reduce considerably the costs of communications infrastructure and services.

That is an example of Mexico's response to the need for regional and international cooperation in this field.

Mr. DAMICO (Brazil): At the outset, Mr. Chairman, my delegation wishes to join previous speakers in expressing satisfaction at seeing you presiding once again over the deliberations of the Committee on the Peaceful Uses of Outer Space (COPUOS). We enjoy the privilege of continuing to count on your able guidance and leadership to guide the work of the Committee at this session to a successful conclusion. We are also grateful for the very useful and comprehensive statement you made yesterday, in which you summed up the main recent developments in the area of outer space affairs.

Likewise, my delegation wishes to devote a word of acknowledgement to the Chairman of the Scientific and Technical Subcommittee, Mr. John Carver, and to Mr. Vaclav Mikulka, Chairman of the Legal Subcommittee, for their able work in presiding over those two important subsidiary bodies of the Committee.

(Mr. Damico, Brazil)

Like other speakers, we welcome the participation of the delegation of the Czech Republic in the work of the Committee. We are fully confident about the positive contribution that delegation will make to the Committee, and we look forward to cooperating with it actively.

We are thankful for the efforts of the Office for Outer Space Affairs under the direction of Mr. Jasentuliyana, and of the Expert on Space Applications, Mr. Abiodun, in preparing the extensive documentation for this session and for their commendable work in carrying out the various other tasks assigned to them.

Finally, we take this opportunity also to thank the members of the Committee for the election of my colleague, Mr. Edgard Telles Ribeiro, to the position of Rapporteur of the Committee, replacing Mr. Edmundo S. Fujita, who has taken up other professional commitments. Mr. Chairman, my delegation will be very pleased to convey to Mr. Fujita the kind words you addressed to him. The delegation of Brazil feels deeply honoured that in keeping with long-standing tradition it continues to provide officers to fill that important position, which enables us, under your leadership, to contribute to the success of the work of the Committee.

These past few years have offered us bright prospects derived from the ending of ideological rivalries. The abolition of traditional patterns of confrontation between the super-Powers brought about transformations in the international scenario that gave rise to hopes for the birth of an era of truly universal peace. However, old threats and hatreds continue to impose themselves upon us, spreading strife and pessimism and frustrating our

(Mr. Damico, Brazil)

long-nurtured wish for security and development. We hold that it precisely at these moments of difficulty that we should enhance cooperation as the best and most effective way to overcome prejudice and intolerance.

As outer space is the province of all mankind and as its exploration should be carried out for the benefit and in the interests of all countries, it is a field particularly suited to enhancing international cooperation. Our concept of peace goes beyond the mere absence of war. Rather, it embodies a dynamic process based on the search for material and spiritual improvement for all peoples. We should continue to strive to extend the solidarity and cooperation prevailing in outer space to the planet as a whole.

We have a very challenging agenda before us; it includes the consideration of the reports of the Legal and the Scientific and Technical Subcommittees on the outcome of their deliberations during the current year. Concerning the Scientific and Technical Subcommittee, it is the well-known view of my delegation, conveyed during previous meetings of this Committee, that the Subcommittee, as an intergovernmental body for the discussion of policies and guidelines for international cooperation in space activities, should play an important supporting role in the development of international space law. Although we consider useful the technical presentations under the items marked for the Subcommittee's special attention, it seems to us that some adjustment of the content and scope of these presentations are necessary.

Turning to another matter, I note that the Scientific and Technical Subcommittee has requested that COPUOS take a decision on the possible inclusion of the subject of space debris in the Subcommittee's agenda for its

(Mr. Damico, Brazil)

next session. The stance of my delegation on this matter is very clear. We do not conceive the Earth environment as distinct from the space environment. Rather, they comprise a unit and should be equally studied and protected. In particular, it is useful to recall one of the basic principles agreed upon in the Rio Declaration on Environment and Development: that a lack of firm scientific evidence should not preclude States from taking measures to prevent environmental degradation.

My delegation takes pride in seeing the Brazilian commitment to international cooperation reflected in the report of the United Nations Expert on Space Applications through the offer by our National Institute of Space Research, in keeping with a commitment that dates back to 1985, to continue to grant scholarships to students from developing countries for the biennium 1992-1993. It is noteworthy that, in the framework of various projects for international cooperation proposed during the second Space Conference of the Americas, Brazil is considering the possibility that the number of scholarships to Latin American students could be increased.

The deliberations of the Legal Subcommittee included a very useful exchange of views on topics relating to the delimitation of outer space, the geostationary orbit, and the consideration of legal aspects related to the principle that the exploration and utilization of outer space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries.

On that last topic, my delegation, along with nine other sponsors, presented a revised version of document A/AC.105/L.182, which has been the object of constructive comments from delegations participating in the debate.

(Mr. Damico, Brazil)

Those observations are being studied actively by the sponsors with a view to further refining the document.

Besides tackling important questions relating to the reports of the Subcommittees of COPUOS, we should let our views be known regarding other important organizational matters such as naming the venues of the meetings of the Committee and its Subcommittees. As we are aware, the thirty-fourth session of COPUOS deferred decision on the practice of holding alternate sessions of the Legal Subcommittee. The restructuring process also has a bearing on this question, as the transfer to Vienna of the Office for Outer Space Affairs implies the transfer of the secretariat in charge of providing support for the meetings of COPUOS and of the Scientific and Technical Subcommittee. In particular, my delegation has taken note of paragraph 10 of General Assembly resolution 47/212 B, in which intergovernmental bodies were requested to report to the General Assembly through the Committee on Conferences on the implications of applying resolution 40/243 to the venues of intergovernmental meetings whose secretariats were affected by the current restructuring.

(Mr. Damico, Brazil)

In principle, my delegation would be in favour of a uniform decision being taken concerning the venues of the meetings of COPUOS and its subcommittees. In view of the greater representation of developing countries in New York, we feel inclined to consider favourably holding all meetings in New York. However, if the impact on the costs of servicing these three bodies proves to be relevant, we could alternatively envisage that, the Legal Subcommittee, whose support services are provided by the Office of Legal Affairs, be kept only in New York.

As to a possible third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 3), we share most of the valid points raised by the delegation of India on the reasons for convening such a conference. The dramatic changes in the geopolitical sphere and the new challenges posed by the need to assure sustainable development on a planetary scale fully support reviewing the priorities set forth in UNISPACE 2. Furthermore, we see merit in the idea that, if possible, the conference be held in a developing country. Finally, we wish to emphasize that the convening of a space conference should not be seen as an end in itself. On the contrary, my delegation, seasoned by the recent experience of the United Nations Conference on Environment and Development (UNCED), feels that the preparatory process as well as the follow-up are crucial stages of a conference. In this respect, should a positive decision be taken by COPUOS regarding UNISPACE 3, we ought to strive to ensure, to the best of our ability, that its preparatory stage be commensurate with the high expectations placed in it. Let me assure the Committee that my delegation is ready to work with other delegations in the search for a consensus resolution on these two important organizational topics.

(Mr. Damico, Brazil)

As announced by my delegation during the thirtieth session of the Scientific and Technical Subcommittee and in your own statement, Mr. Chairman, the first Brazilian satellite was successfully launched on 10 February 1993 by a Pegasus rocket. That satellite, Data Collection Satellite 1 (SCD-1), totally planned and built in Brazil by the National Institute of Space Research, was conceived as an environmental data collection satellite aimed at receiving data from various stations in the territory of Brazil and relaying them to a central station.

The important matters we will be discussing in the next two weeks will, I am sure, be dealt with in a spirit of cooperation and compromise. Under your guidance, Mr. Chairman, our deliberations are sure to have a fruitful outcome and thus continue to strengthen the cause of promoting the peaceful uses of outer space.

Mr. LIU Dagun (China) (interpretation from Chinese): Mr. Chairman, I should like first of all to take this opportunity to congratulate you, Sir, on presiding over the session once again. I am confident that, under your outstanding guidance, the session will make important new progress. I also wish to express my appreciation for the work of the Chairmen of the Scientific and Technical Subcommittee and the Legal Subcommittee and of the Secretariat. Their tireless endeavours have ensured the smooth conduct of our work.

Over the past year, fruitful results were achieved in the outer space activities carried out by various countries and in international space cooperation. In this connection, activities sponsored by the United Nations Programme on Space Applications for 1993, with the support of the relevant national Governments and international agencies, have provided many countries, in particular the developing countries, with much technical and advisory

(Mr. Liu Dagun, China)

services. Many kinds of training courses, seminars and working group meetings held within the United Nations system are all part of the useful work of promoting and coordinating space activities, and gratifying results have been achieved. We are glad to note that, owing to the rapid development of science and technology, mankind's capacity in outer space has improved considerably, thus laying a solid foundation for mankind to use outer space for peaceful purposes and for the benefit of the world. At the same time, the continuous development and improvement of the outer-space legal system has created more favourable conditions and guarantees the further development of space activities. Worthy of particular mention is the encouraging adoption of the Set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space.

Over the past year, new progress was made in international space cooperation. In 1992 China's space technology achieved major results with five launchings. To date, China has conducted 33 successful launchings and sent 38 satellites into orbit. At the end of 1992 China, together with Pakistan and Thailand, and with the participation of representatives from the Asia-Pacific region and the United Nations, held the Asia-Pacific Workshop on Multilateral Cooperation in Space Technology. The participants shared the view that such regional cooperation is mutually complementary and expressed their willingness to learn advanced technology from other countries so as to continue and strengthen multilateral cooperation in space technology and applications in the Asia-Pacific region. During the workshop, a recommendation on multilateral cooperation in space technology and application in Asia and the Pacific was approved, embodying five principles to be followed, and a decusion was taken to set up a liaison committee for Asia-Pacific multilateral cooperation in space technology and

(Mr. Liu Daqun, China)

applications. The Chinese delegation has submitted the recommendation to the Secretariat to be issued as a United Nations document.

The Chinese Government has always actively supported the implementation of United Nations Programmes on Space Application and attaches great importance to using space-related technology to promote national economic and social development. In 1993 the Chinese Government will continue to provide other developing countries with two candidates for one-year training programmes. In the first half of 1994, China will cooperate with the United Nations to host in China a seminar for the application of data of synthetic aperture radar to promote the application of this new technology in the world, especially in developing countries. In accordance with the decision adopted at the forty-ninth session of the Economic and Social Commission for Asia and the Pacific, the Ministerial Conference on the Promotion and Development of Space Applications in the Asia-Pacific region will be held in September 1994 in Beijing. This is a major event for space applications in that region. We expect historical results will be achieved at the conference.

The Committee has for many years kept the issue of "Ways and means of maintaining outer space for peaceful purposes" high on its agenda and has done a great deal of work in this regard. The Chinese Government would like to express its appreciation for this. The Chinese delegation wishes to reiterate that, in order to further promote and strengthen the peaceful use of outer space, effective measures must be adopted to prevent the militarization and weaponization of outer space. At present, the international situation is moving towards relaxation, and this has provided us with an opportune moment to protect the peaceful environment in outer space. The Chinese delegation is

(Mr. Liu Daqun, China)

willing to work with other delegations to seek feasible ways and means through full consultations.

Regarding the work of the Subcommittee on Science and Technology and the Legal Subcommittee, the Chinese delegation will make more specific comments at the appropriate time. At this time I wish simply to express our satisfaction with the progress made by the two Subcommittees during their previous sessions.

The Committee on Outer Space has made much progress thanks to its endeavours over the years, but it is also faced with many difficulties. We hope that the Committee will continue to solve the problems confronting it in a concerted effort with all Member States so as to achieve greater progress. China is a developing space country. At present, its capability in outer space is still limited, but the Chinese Government is willing to cooperate with other countries and to make its contribution to mankind's peaceful exploration and uses of outer space.

Mr. TOFALVI (Hungary): Let me take this opportunity to inform members about Hungarian space activities carried out since the last session of the Committee on the Peaceful Uses of Outer Space.

At the Committee's last session I reported that the Hungarian Intercosmos Organization had ceased to exist and the Hungarian Space Office had been established; the main directions in our space activities had been selected; the priority order of our main research-and-application directions had been decided; and the aims of our international cooperation under the new conditions had been determined.

The year 1992 proved that we were right in basing our space activities on international cooperation carried out, first of all, in the main directions: space-Earth system and space physics. We regard as an acknowledgement of our sound choice the fact that the 1992 European Association of Remote Sensing Laboratories Congress and Symposium was held in Hungary.

During the last year our main directions in international cooperation took the form of cooperation between Hungary and the European Space Agency (ESA), the National Aeronautics and Space Administration (NASA), the Central European Initiative (CEI) and Eastern Europe, respectively. It seems we already have working projects finding their place in some significant ESA, NASA and CEI programmes.

This year we intend to build up bilateral cooperation with small and medium-sized States. The past year has justified the recognition that regional cooperation is and will continue to be more and more important for the small and medium-sized countries.

In the light of the negotiations held so far, we are of the view that beyond our cooperation with ESA, NASA and Eastern Europe, the role of CEI will

(Mr. Tófalvi, Hungary)

come to be strongly emphasized in our space activities, together with bilateral cooperation with small and medium-sized countries.

In our country, in addition to direct State assistance in operating the institutes, a totally new tender system has been established in 1993 to help financially the space research-and-application institutes. Within the framework of this tender system, the space research-and-application institutes submit their applications to a committee for evaluation and selection on a competitive basis.

In conclusion, may I say that the results of 1992 and the first half of 1993 encourage us to continue our work in the new directions emanating from our new conception and programme. All these are in accordance with Hungary's real aims and possibilites.

Mr. CISSE (Senegal) (interpretation from French): As this is my first occasion to address the Committee on the Peaceful Uses of Outer Space, I should like to express my warmest congratulations, Mr. Chairman, on your election to the chairmanship of this important subsidiary organ of the General Assembly.

Since its admission to the United Nations, Senegal has followed with particular interest the activities of this Committee, and it welcomes the Committee's remarkable accomplishments, since its creation in 1958, in strengthening international cooperation in the peaceful uses of outer space and, especially, the codification of the various activities connected with the use of this common patrimony of mankind.

Today it is an honour and a pleasure for me to address the Committee and announce that the Government of Senegal has agreed with pleasure to the

(Mr. Cissé, Senegal)

proposal to hold in Dakar, from 25 to 29 October 1993, the regional United Nations conference on space technology for sustainable development in Africa.

The holding of this meeting in Senegal, on African soil, is of very special significance for us, as it marks the starting-point of a cooperation - one that we hope will be fruitful - between the United Nations system and the countries of the African continent in the application of space technologies for information on the environment and natural resources.

Having faced for some 20 years the devastating effects of persistent drought and increasing desertification, the countries of the African continent are aware of the stakes in mastering space technologies, which, since 1975, have enabled the setting up of a network of remote sensing centres and developing of subregional meteorological early-warning systems, such as the one for the member countries of the Permanent Inter-State Committee on Drought Control in the Sahel.

However, the broad scope of needs and the complexity of the problems to be solved are such that in Africa we can only hail this Committee's initiative to hold in Dakar a meeting whose results will, we are sure, contribute to assisting the African countries in carrying out the goals assigned to them under paragraph 17 of Agenda 21, adopted by the United Nations Conference on Environment and Development.

I am certain that the meeting planned for Dakar will have a major impact on the negotiating process for the international convention on drought and desertification now being prepared, which is of great interest to Africa.

Allow me, in conclusion, to take this opportunity to reiterate on behalf of the Senegalese Government our invitation to all countries and organs concerned to participate actively and in great numbers in the forthcoming conference in Dakar, thus ensuring its success. We bid them welcome.

The CHAIRMAN: I now call on the representative of the International Telecommunications Satellite Organization.

Mr. TRUJILLO (International Telecommunications Satellite Organization (INTELSAT)): On behalf of the International Telecommunications Satellite Organization (INTELSAT), I should like to express my appreciation for the opportunity to exchange views with my colleagues here today. I should also like to thank you, Mr. Chairman, for your leadership of this session of the Committee. Your counsel and guidance will be of great benefit to the Committee during the course of its deliberations.

(Mr. Trujillo, INTELSAT)

Since the last session of the full Committee, the INTELSAT global satellite system has continued to expand to meet the growing world-wide demand for telecommunications services. An aggressive satellite procurement and deployment plan is now under way, so that we may meet increasing customer needs around the world.

In March, INTELSAT signed a contract with Arianespace to launch two of our next-generation satellites, the INTELSAT VIII series, in 1996 from Kourou, French Guiana. The contract calls for two firm launches and an option for up to three additional launches. The INTELSAT 801 and 802 satellites, currently under construction, will ride aboard Ariane 4 launch vehicles. After successful deployment, the satellites are expected to operate for at least 16 years.

The INTELSAT 801 and 802 are designed to meet the needs of INTELSAT users in the Pacific Ocean region for improved C-band coverage and service well into the twenty-first century. These satellites will feature the highest number of C-band transponders - 38 - and the highest C-band power level - up to 36 dbW - ever for INTELSAT spacecraft. Potential expanded service areas include telephony; television programme distribution; and business applications, such as video conferences and data distribution via very small aperture terminal antennas (VSAT) networks.

INTELSAT also has ordered an additional VII series satellite, the INTELSAT 709, from Space Systems/Loral. Each INTELSAT VII has 26 C-band and 10 Ku-band transponders, providing the capacity to carry up to 90,000 simultaneous two-way telephone calls and three television channels. The 709 is scheduled to enter service in 1996 and will have an operating lifetime of about 15 years.

(Mr. Trujillo, INTELSAT)

INTELSAT also has entered into an agreement with Russia's INFORMKOSMOS organization that grants INTELSAT the option to lease up to three satellites of its Express class, with the first satellite capacity available in mid-1994.

This agreement demonstrates INTELSAT's aggressive commitment to secure near- and mid-term satellite capacity, in addition to our long-term spacecraft procurement programmes, to meet the growing demands of our customers around the world.

INFORMKOSMOS was established by the Russian Federation to design, control, manufacture, own and finance the Express satellite series. Each Express satellite leased by INTELSAT will have 10 C-band 36-MHz transponders and two Ku-band 36-MHz transponders.

The United Nations-INTELSAT partnership also has expanded since the last meeting of the full Committee. Earlier this year, United Nations Secretary-General Boutros Boutros-Ghali and INTELSAT Director General and Chief Executive Officer Irving Goldstein signed an agreement to provide the United Nations with expanded use of satellite capacity on the global INTELSAT system. This expansion enables the United Nations to increase its satellite communications capabilities for disaster mitigation and prevention, and relief communications services, as well as communications to support the developmental and institution-building efforts of various United Nations specialized agencies.

INTELSAT first provided leased capacity for telecommunications service to the United Nations in 1984. Since that time, the United Nations has used this capacity to maintain links to its field staff for peace-keeping and disaster-relief services. As Mr. Boutros-Ghali pointed out when signing the new agreement:

(Mr. Trujillo, INTELSAT)

"In the intervening decade since the United Nations began to use the INTELSAT system, our role has evolved and grown. Today, we must keep pace with the availability of technology and support not only peace-keeping and disaster-relief efforts but also humanitarian, economic and social development activities. I believe this agreement will enhance the capacity of both our organizations to promote world peace and understanding".

The United Nations network, based in New York, operates via five INTELSAT leases in the Atlantic and Indian Ocean regions. Earth stations used in the network range in size from 11 metres, at the New York hub, to 1.8-metre transportable antennas that give the United Nations flexibility to move quickly to meet changing emergency requirements.

INTELSAT's growing number of customers is setting new records for INTELSAT services. INTELSAT is the largest and most comprehensive provider of satellite communications, providing unique advantages to the customers we serve. We provide the flexibility to meet all satellite communications requirements - international, regional and domestic - through one hub facility; and the ability to interconnect with any other INTELSAT location anywhere in the world.

(Mr. Trujillo, INTELSAT)

INTELSAT's connectivity now extends to more than 2,700 Earth-station-to-Earth-station communication links that encompass the globe. Full-time channel use increased 4.3 per cent in 1992 over 1991. As of March 1993, the INTELSAT system carried more than 130,000 public switched-service channels and more than 240 full-time leases for a variety of international, regional and domestic telephony, broadcasting and business applications. We serve more than 180 countries, territories and dependencies with our 19-satellite fleet.

More of our services are digital. In 1992, digital public switched traffic on the INTELSAT system increased by almost 50 per cent while analog switched services showed a decrease of almost 18 per cent from 1991.

Over the past year, we have enhanced overall system efficiency with the completion of the new telemetry, tracking, command and monitoring (TTC&M) network. Completion of our new network was accomplished when the Beijing, China TTC&M station began service in October 1992. The Beijing station joins those at Perth, Australia; Fucino, Italy; Raisting, Germany and Paumalu and Clarksburg in the United States.

The market-place for global satellite communications is growing rapidly, in all areas of the world, for all types of service. INTELSAT is applying its knowledge and experience to develop multiple strategies for meeting global customer satellite requirements now and for the future. Our global customer base demands four basic categories of service: public switched network services; private network services; broadcasting services and domestic/regional services. INTELSAT is strongly committed to all these product lines.

(Mr. Trujillo, INTELSAT)

Our domestic/regional services are a growing market segment, and 37 countries currently use INTELSAT for national telecommunications purposes. Progress has also been achieved in the establishment of regional communications networks for South America, Africa and the island nations of the South Pacific over the INTELSAT system.

In South America, the Association of State Telecommunication Undertakings of the Andean Subregional Agreement (ASETA), comprising the countries Bolivia, Colombia, Ecuador, Peru and Venezuela, and INTELSAT have agreed on a final plan for the implementation of ASETA's regional system in 1995. The plan calls for the initial use of the capacity of twelve and a half 36 MHz transponders on an INTELSAT satellite located at 329 degrees East to meet ASETA's requirements.

For African communications, INTELSAT has worked with the Regional African Satellite Communication System (RASCOM) to plan an incremental solution proposed by INTELSAT to pool the existing and projected domestic networks used by RASCOM members onto one or two satellites. INTELSAT will be working with RASCOM throughout 1993 to obtain the traffic information for development of a consolidated plan.

In the dynamic Asia-Pacific region, the Pacific Area Cooperative Telecommunication Network (PACT), operated by Australia's INTELSAT signatory, Telstra, has been using INTELSAT capacity since its inception in December 1990 to provide a demand-assigned, multiple access service to participating Pacific countries. The PACT network provides cost-effective, high quality thin-route communications for 11 Pacific nations. For some of these nations, the PACT network is their major international and inter-island domestic communications medium.

(Mr. Trujillo, INTELSAT)

The success of the PACT network in the Pacific has led Telstra to establish a second demand-assigned, multiple access network, in the Indian Ocean, using INTELSAT's Intelnet service. As with the Pacific, the major target areas are developing countries, to provide public switched telephony and data networks, and also developed countries that wish to access those nations directly. The continued development of both the PACT and Indian Ocean networks should ensure their success in meeting global customer needs well into the next century.

It has been almost 30 years since the INTELSAT organization was begun by the original 11 member nations. Now, with 125 member nations, INTELSAT remains committed to providing state-of-the-art telecommunication services to all nations on a non-discriminatory basis. The success of this mandate is reflected in the strong growth in demand and the increasing need for additional satellite capacity.

Mr. Chairman, I thank you for the opportunity to share our recent experience in the peaceful and commercial use of outer space with our colleagues here today.

The CHAIRMAN: I now call on the President of the International Society for Photogrammetry and Remote Sensing (ISPRS).

Mr. MURAI (International Society for Photogrammetry and Remote Sensing (ISPRS): The International Society for Photogrammetry and Remote Sensing is pleased to participate in this thirty-sixth session of the Committee on the Peaceful Uses of Outer Space. On behalf of ISPRS, with 94 ordinary member countries and five regional members, we are very honoured to report to you that ISPRS continues to take an active role in promoting scientific and technical development, particularly in remote sensing and geographic information systems (GIS) with the use of satellite data.

ISPRS activities are carried out in the following events, beginning with the quadrennial Congress. The next Congress will be held in Vienna, Austria, from 9 to 19 July 1996. The Congress Director is Professor Karl Kraus of the Vienna University of Technology.

Several thousand photogrammetrists and remote sensing scientists from about 100 nations will participate in plenary sessions, technical sessions, United Nations seminars and workshops, International Union for Surveys and Mapping workshops, exhibitions, technical tours and social events.

Next there are the mid-term symposiums of technical commissions. Seven technical commissions will organize the mid-term symposium in each host country in 1994 on photogrammetry and remote sensing topics, as follows:

1-4 March	Commission V Symposium, on "Close Range Techniques and Machine Vision", Melbourne Australia;
30 May-3 June	Commission IV Symposium, on "Mapping and Geographic Information Systems", Georgia, United States;

(Mr. Murai)

6-9 June	Commission II Symposium, on "Systems for Data Processing, Analysis and Representation", Ottawa, Canada;
5-9 September	Commission III Symposium, on "Theory and Algorithms", Munich, Germany;
12-16 September	Commission I Symposium, on "Sensors, Platforms and Imagery", Como, Italy;
26-30 September	Commission VII Symposium, on "Resource and Environment Monitoring", Rio de Janeiro, Brazil;
10-13 October	Commission VI Symposium, on "Economics, Professional Matters and Education", Beijing, China.

Several hundred scientists and experts will participate in each mid-term symposium on advanced technologies and applications in photogrammetry and remote sensing.

Thirdly, there are working group seminars and workshops. Five to ten working groups per technical commission, totalling 47 working groups, will organize seminars or workshops on specific technical issues - for example, "global geographic information systems", "mapping from space", "optical three-dimensional measurement", "hardware and software for fast image data processing" and "signature measurement".

Finally, there are publications. The ISPRS official journal, Photogrammetry and Remote Sensing, is published six times each year under its Editor-in-Chief, Dr. David Tait, University of Glasgow. The journal includes high-quality scientific papers, news, reports and book reviews.

All information relating to ISPRS matters on the officers, technical commissions, working groups, Statute, by laws, the guiding rules of ISPRS

(Mr. Murai)

awards, etc., is summarized in "ISPRS Organization and Programs 1992-1996", which is available through Mr. Lawrence Fritz, Secretary General of the ISPRS, who is present today.

The "ISPRS Member List", with member countries, responsible organizations, the officers and addresses, is published annually by the Secretary General.

The official records of the previous congress - the 17th ISPRS Congress, held in Washington, D.C., last August - will be published this year in a synopsis volume of "International Archives of Photogrammetry and Remote Sensing".

The ISPRS is pleased to contribute to the scientific and technical aspects of the peaceful uses of outer space, particularly in the following fields.

Automated generation of digital elevation model from stereo CCD sensor: this technology is an advanced technology as an extension of digital photogrammetry, including stereo imaging, stereo matching and computer-assisted mapping.

Global resource and environment monitoring: this subject is involved in mapping from space, not only at local or regional level, but also at global level.

Integration of remote sensing and GIS for natural resource management and sustainable development: a number of ISPRS experts are involved in this important subject. Data capture, database and spatial data analysis for GIS are major tasks in ISPRS. Global GIS is now one of ISPRS's scientific goals.

Validation and verification of satellite sensors: image quality of both radiometric and geometric performances will be verified by ISPRS-related experts.

(Mr. Murai)

Design and planning of mapping satellites: ISPRS is able to propose the optimum requirements of mapping satellites for global topographic mapping as well as global thematic mapping.

Education and training in remote sensing and GIS: ISPRS has the capability to prepare teaching materials, computer-assisted teaching software, data set and teaching staffs in cooperation with the United Nations.

We are very pleased to report that the ISPRS will have many opportunities to contribute to the successful achievement of the activities of COPUOS.

The CHAIRMAN: The last speaker this morning is the representative of the European Space Agency.

Ms. HOOD (European Space Agency (ESA)): On behalf of the European Space Agency, may I congratulate you, Sir, on your efficient chairmanship of this Committee and on your excellent summary of the main events in space activities over the last year.

May I also thank you for the opportunity to make a presentation of ESA's activities and programmes over the past year, and highlight our international cooperation, especially with the Office for Outer Space Affairs, working towards one of our common aims - that of diffusing information on the possibilities offered by space applications for peaceful purposes as widely as possible throughout the world.

Since the last meeting of this Committee, the European Space Agency had a Council meeting in Granada, Spain, at ministerial level in November 1992, when three very important resolutions were adopted by the Ministers of our Member States: the resolution on the implementation of the European long-term space plan and programmes; the resolution on international cooperation; and the resolution on space cooperation with the Russian Federation.

(Ms. Hood, ESA)

The first resolution gave ESA the green light to proceed with its Earth-observation programme, notably POEM-1, which will be made up of the instruments for two satellites: Envisat and Metop. Envisat-1 is planned for launch in 1998; its mission will be dedicated to understanding and monitoring the environment, continuing the work of ERS-2, which is scheduled for launch in 1996. Metop-1 is planned for launch in the year 2000, and will be developed in close cooperation with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT). It will be an operational meteorological satellite.

The Ministers stressed the importance of ESA's Earth-observation programme for the protection of the environment, and its contribution to a coherent European Earth-observation policy. They also particularly mentioned the use developing countries could make of these data world wide.

In the same resolution the Ministers approved the development by ESA of a system of data-relay satellites, the first to be launched in 1999. The modified Columbus programme was also approved, with four elements: the development and launch of the Columbus Attached Laboratory; the development and launch in 1998 of a polar platform, which will carry the Envisat-1 payload; the execution of Columbus precursor flight activities to prepare for the exploitation of the Columbus Attached Laboratory and to provide intermediate flight opportunities for the user community in Europe; and the execution, over the period 1993 to 1995, of system studies and definition activities involving international cooperation on a future crewed in-orbit infrastructure.

(Ms. Hood, ESA)

For the Hermes programme the Ministers approved a three-year reorientation period to study three options related to a future crewed transportation system: cooperation with the Russian Federation; cooperation with the United States; and an autonomous European scenario. These studies include system studies of an ESA-Russian Hermes crew-transportation vehicle, a detailed study for the ESA Assured Crew-Return Vehicle (ACRV) as an element of cooperation with the United States in the International Space Station programme, and an automated transfer vehicle (ATV) using Ariane.

The Ministers also reaffirmed their support for ESA's science programme, the ongoing programmes for Earth observation including the second-generation Meteosat, microgravity, telecommunications, launchers and space technology.

As Mr. Arets predicted in his statement to the Committee last year, the Ministers emphasized the importance of international cooperation, and indeed adopted two resolutions on that subject. The second resolution deals with international cooperation in general and encourages the Director General to form even closer relations with the European Communities and with other European space organizations: the European Telecommunication Satellite Organization (EUTELSAT) and EUMETSAT. The Ministers

> "invite the Director General to seek, together with those responsible for cooperation in ESA's member States, ... ways of making available to the developing countries, on mutually acceptable terms, appropriate data obtained through the Agency's programmes that can be of use to them"

and have asked for a report on such cooperation. With that in mind, we are

(Ms. Hood, ESA)

organizing a special meeting of ESA's International Relations Committee in October this year to discuss with aid agencies in our member States ways and means of providing data from ESA's programmes to developing countries.

The resolution also notes with satisfaction the close cooperation between ESA and Canada and Finland, and the deepening of the long-standing cooperation with the United States, the Russian Federation and Japan. Finally, the Ministers express their wish for ESA to maintain and develop relations with Central and Eastern Europe.

The third resolution relates specifically to ESA's relations with the Russian Federation and endorses active cooperation, especially in the areas of in-orbit infrastructure, crew-transport facilities, communications facilities associeted with in-orbit infrastructure, and missions aboard the Mir station.

There have been numerous meetings with the Russian Space Agency, and there was an ESA-Japan meeting last week in Japan. There will be a meeting in Washington on 11 June among the United States, ESA, Canada and Japan to discuss the International Space Station.

ESA also cooperates actively with India, Latin America, the Association of South-East Asian Nations (ASEAN), China and Australia. Last but not least, ESA cooperates closely with the Office for Outer Space Affairs, especially in the areas of training and fellowships. Recently, an ESA staff member participated in the mission to Ecuador and the Andean countries to evaluate the Cotopaxi ground receiving station. We look forward to continuing this cooperation in the year to come.

(Ms. Hood, ESA)

Before ending, I would like to mention that ESA organized the first European Space Debris Conference, in Darmstadt, Germany, from 5 to 7 April this year. That conference followed a quadrilateral space-debris coordination meeting with representatives of the National Aeronautics and Space Administration of the United States (NASA), the Russian Space Agency and Japan, which was held at the European Space Operations Centre from 2 to 3 April.

The CHAIRMAN: I should like once again to remind delegations wishing to speak on this item to place their names on the list of speakers as soon as possible.

The meeting rose at 12.15 p.m.